

What is claimed is:

1 1. A method for determining an tilt angle of an
2 optical pickup head of an optical drive, applied in a
3 jitter inspection device comprising a jig for simulating
4 and adjusting a tilt angle of the optical pickup head,
5 and a jitter meter installed on the jig for inspecting
6 jitter values of the optical pickup head at different
7 tilt angles, comprising the steps of:
8 measuring the optical pickup head with the jitter
9 meter utilizing a quadratic surface equation Z
10 $= ax^2 + by^2 + cx + dy + e$ and using the jitter
11 inspection device;
12 obtaining five sets of tilt angles of (x_1, y_1) , $(x_2,$
13 $y_2)$, (x_3, y_3) , (x_4, y_4) , and (x_5, y_5) , for the
14 optical pickup head by adjusting the jig five
15 times;
16 creating a simultaneous equation according to the
17 five sets of tilt angles and their
18 corresponding jitter values Z_1, Z_2, Z_3, Z_4 and
19 Z_5 ;
20 solving the simultaneous equation to obtain the
21 result of a_1, b_1, c_1, d_1 and e_1 ;
22 substituting the values of a_1, b_1, c_1, d_1 and e_1 in
23 the quadratic surface equation to create a
24 quadratic surface equation $Z = a_1x^2 + b_1y^2 +$
25 $c_1x + d_1y + e_1$;
26 solving the quadratic surface equation to obtain a
27 minimum jitter value and an optimum tilt angle;
28 and

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29 producing a barcode in accordance with the minimum
30 jitter value as a basis for adjusting the
31 emitting angle of the optical pickup head.